

Dr. King Plaza East Orange NJ

Dr. King Plaza is a new energy efficient mixed use building in downtown East Orange. The handsome five story structure provides 96 mixed income apartments above 28,000 square feet of retail space. Developed by RPM Development Group, Dr. King Plaza was the recipient of an Excellence in Housing Award from the Governor's office in 2003 and the 44th Annual Good Neighbor Award from the city of East Orange in 2004. The project is part of a larger redevelopment effort in East Orange along with Brick Church Commons, a three building complex on the neighboring block.



Dr. King Plaza contains 4 one-bedroom, 84 two-bedroom and 8 three-bedroom apartments. Eighty percent of the units are affordable while the remaining 20% are market rate. The apartments have ample sized living/dining areas and large well appointed kitchens. Laundry facilities are provided on each floor. The lobby acts as a gallery for the paintings of local artists and features a mural with excerpts from Dr. Martin Luther King Junior's famous speech, "I Have a Dream". An attractive tree lined brick paved promenade in front of the building encourages foot traffic past the grade level shops. The downtown site offers residents close proximity to trains, buses and local shopping. Underground parking is provided for residents. On site parking for the project's retail customers is broken up with attractive landscaping and site lighting. Dr. King Plaza also has an outdoor children's play area.

Green Features

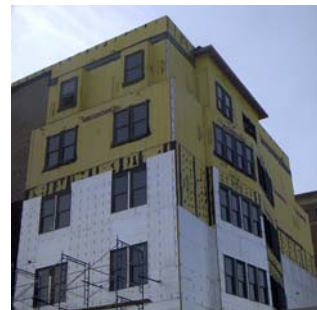


The wood flooring and base molding in the apartments is made of recycled wood. The landscaping at Dr. King Plaza was designed to allow for infiltration of rainwater resulting in reduced storm water runoff. All trees and plantings are native to the area and are drought hardy to minimize water use.

The hard floor surfaces in the apartments help to maintain good indoor air quality by minimizing the build up of dust and allergens. An added measure for improved indoor air quality is the ventilation system. All apartments are air sealed from one another, each having its own exhaust fan with ducts running to the bathroom(s) and kitchen. The fan draws out the moist stale air in these spaces to the outside. A separate ventilation system exhausts stale air from the building's common corridors to the outside.

Energy Features

The outside walls of Dr. King Plaza have 2" of rigid foam insulation on the exterior of the steel stud walls. This insulation provides a thermal resistance of R-14.3 and minimizes the potential for conductive heat loss through the steel studs. The roof is insulated with 4" of rigid foam above the roof deck. This provides an R-value of 28.6 and keeps the inside of the roof deck warm, reducing the potential for condensation on that surface. The windows have well insulated fiberglass frames and heat saving low e argon filled glass. Window openings are wrapped with a flexible sealing membrane to reduce air infiltration and the potential for water intrusion. The building is extensively air sealed with foam sealant at the roof, floors, outside walls, windows, and walls between apartments.



Each apartment at Dr. King Plaza is heated by a high efficiency sealed combustion gas furnace and SEER 13 air conditioner. Heated and cooled air is delivered through insulated ductwork sealed with mastic. The building has continuously circulating central hot water provided by high efficiency sealed combustion gas water heaters. All kitchen appliances are Energy Star and lighting fixtures use compact fluorescent lamps. The laundry areas on each floor have horizontal axis high efficiency washing machines.

Lesson Learned

Team members for Dr. King Plaza were pleased to say that there weren't any major stumbling blocks during the development of the project. They stressed the value the of the sustainable design consultant working with the architect early on in the design process to get the maximum benefit of both parties' expertise.

Project Summary Dr. King Plaza

OWNER/DEVELOPER

RPM Management, LLC

ARCHITECT/ENGINEER

John C. Inglese

CONTRACTOR

RPM Contracting, LLC

SUSTAINABLE DESIGN CONSULTANT

Joseph Lstiburek, Building Science Corp.

PROPERTY MANAGEMENT

RPM Management, LLC

FUNDING

Deferred Developer Fee	\$1,000,000
Community Development Block Grant and others	1,400,000
Federal Home Loan Bank	720,000
Investor Equity	4,355,855.
First Mortgage Loan	3,020,058.
NJ Department of Community Affairs	3,247,500.00
New Jersey Redevelopment Authority	1,000,000
GAP	1,164,917.00
Total	\$15,908,330.

DEVELOPMENT TYPE

Five story multifamily residential commercial first floor

RESIDENT PROFILE

Families and individuals at low income (76 units) and market rate (20 units)

DENSITY

40 units per acre

DEVELOPMENT PROFILE

Type	#/Units	Approx. SF	Rent
1BR	4	880	\$600
2BR	84	1100	\$700-850
3BR	8	1290	\$950

CONSTRUCTION TYPE

Five story steel frame new construction.

DEVELOPMENT COSTS

Property acquisition costs	\$ 600,000
Construction costs	12,373,000
Professional Services	2,265,000
Financing and other costs	670,330
Total	\$15,908,330

Energy Efficient/Green features
Building Envelope
Exterior walls - R-14.3 exterior polyisocyanurate rigid insulation
Roof - R-28.6 exterior rigid insulation
Windows – Fiberglass frame low e argon filled
Air sealing measures - Air tight drywall approach, insulated foam sealant, flexible membrane sealant at window rough openings
Mechanical systems
Heating system - 90% efficient condensing gas furnaces
Air conditioning - SEER 13 AC units
Programmable thermostats
Central hot water with high efficiency gas fired water heaters. Hot water circulated in a continuous loop
Appliances/lighting
Energy Star refrigerator and dishwasher
Indoor Lighting - Energy Star light fixtures with compact fluorescent bulbs
Green/recycled materials practices
Recycled or post industrial wood flooring
Wood base molding made from postindustrial wood
Indoor air quality measures
Wood flooring in kitchens, living rooms dining rooms and hallways
Ceramic tile in bathrooms
Granite tile in lobbies
Mechanical compartmentalized ventilation in apartments and public hallways
Water Conservation
Drought resistant landscaping
Transportation
Accessible to train and buses